

STUART W. FROST: LIST OF PUBLICATIONS (1957-80), NEW NAMES PROPOSED, AND SPECIES NAMED IN HIS HONOR^{1,2}

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ABSTRACT: Stuart W. Frost, a well-known student of the Agromyzidae (Diptera) and of insect biology, died in January 1980. Lists of Dr. Frost's publications during 1957-80, new names he proposed, and species named in his honor are provided.

With the death of Stuart W. Frost on January 21, 1980, Pennsylvania lost a well-known and respected entomologist — a student of agromyzid leafminers and apple pests, an author of several books and more than 240 papers on diverse subjects — and entomology lost one of its few remaining ties to John Henry Comstock's legendary department at Cornell. Shortly before his death, at the urging of colleagues, Dr. Frost published an informal, engaging account of his life's work (Frost 1979). His career, beginning with the pursuit of insects as a young naturalist in Tarrytown, New York, and undergraduate and graduate training at Cornell University, took him to the Arendtsville research station of the Pennsylvania State College (now University). There he began studies on fruit tree pests and eventually went to the College's main campus where he organized an insect collection and introduced the value of insect study to hundreds of students. His own text *General Entomology*, published in 1942 and retitled *Insect Life and Natural History* in a 1959 revision, aided his teaching. In later years he collected some 400,000 insect specimens during 13 winters of blacklight trapping at Florida's Archbold Biological Station (Highlands Co.). After retiring in 1957, he took obvious delight in identifying specimens and adding new material to the Penn State insect collection, aptly named the Frost Entomological Museum in 1969.

Dr. Frost's autobiographical sketch and the eloquent tribute prepared after his death by K.C. Kim (1980), present curator of the Museum, have provided insight into his personality and a good summary of his accomplishments; more of course could and, I hope, will be said about his work in entomology. In my own tribute to Dr. Frost, I am bringing up to date the list of his writings and listing both the new names he proposed during his studies in insect systematics and the species named in his honor.

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The Writings of S.W. Frost, 1957-80

In 1958, S.W. Frost listed in this journal 191 of his papers published from 1916 to 1957 (Frost 1958). The following represents a nearly complete list of his scientific and popular articles published since late 1957 and includes a 1939 taxonomic paper omitted from his original list. To compile this list, I have used the record of writings that Dr. Frost maintained through 1972, a bound set of his reprints, and my own review of literature. I have omitted intentionally only his replies to questions sent in to *Adventure Magazine*, even though he had included most of these "Ask Adventure" responses in his 1958 list. Dr. Frost, an entomologist of diverse interests, was fascinated with postage stamps featuring birds, frogs, insects, and other animals, and I may well have overlooked a few of his contributions to philatelic magazines.

1939

- 123a. Two new species of *Agromyza* from South America (Dipt.: Agromyzidae). Entomol. News 50:97-100.

1957

192. Aphids attracted to light traps. Ann. Entomol. Soc. Am. 50:581-583 (S.W.F. and J.O. Pepper).

1958

193. Papers by S.W. Frost. Entomol. News 69:67-78.
194. *Halysidota tessellaris* S & A and pollenia. Entomol. News 69:137-138.
195. The Ecological Insect Survey of Pennsylvania. Entomol. News 69:222-223.
196. The Tabanidae of Pennsylvania. Trans. Am. Entomol. Soc. 84:169-215 (S.W.F. and L.L. Pechuman).
197. Insects attracted to light traps placed at different heights. J. Econ. Entomol. 51:550-551.
198. Traps and lights to catch night-flying insects. Proc. 10th Int. Congr. Entomol. 2:583-587.
199. Insects captured in light traps with and without baffles. Can. Entomol. 90:566-567.
200. Insects on postage stamps. Topical Time 9(4):156-160.
201. Stamps featuring or suggesting fish. Weekly Philatelic Gossip 67(5):112-114.
202. Art on postage stamps. Everyday Art 37:19-21.

1959

203. Insects captured in black-painted and unpainted light traps. Entomol. News 70:54-55.
204. Insects caught in light traps with new baffle designs. J. Econ. Entomol. 52:167-168.
205. Insects exalted. Everyday Art 37:4-21.
206. The firefly, a truly photogenic species. Turtox News 37(8):212-213.
207. Insect life and insect natural history. 2nd edition, revised. Dover Publications, New York, N.Y. 526 pp.
208. Birds on United States stamps. Stamps 106(1):14.

1960

209. Review of "Synopsis of the species of agromyzid leaf miners described from North America (Diptera)" by K.E. Frick. Quart. Rev. Biol. 35:154.
210. A solution for the O.G. problem. Linn's Weekly Stamp News 33(43):4.

1961

211. Key to common groups of spiders. Pages xix-xx in Emerton, J.H. The common spiders of the United States. Dover Publications, New York, N.Y.

1962

212. Obituary. Norris Dwight Blackburn, 1902-1962. J. Econ. Entomol. 55:1024.
213. *Liriomyza archboldi*, a new species (Dipt., Agromyzidae). Entomol. News 73:51-53.
214. Winter insect light-trapping at the Archbold Biological Station, Florida [Part 1]. Fla. Entomol. 45:175-190.

1963

215. Winter insect light trapping at the Archbold Biological Station, Fla. [Part 2]. Fla. Entomol. 46:23-43.

1964

216. Insects taken in light traps at the Archbold Biological Station, Highlands County, Florida. Fla. Entomol. 47:129-161.
217. Killing agents and containers for use with insect light traps. Entomol. News 75:163-166.

1965

218. Insects and pollinia. Ecology 46:556-558.

1966

219. Notes on common Scarabaeidae taken in light traps at Archbold Biological Station, Florida. Fla. Entomol. 49:189-194.
220. Additions to Florida insects taken in light traps. Fla. Entomol. 49:243-251.
221. Stamps featuring or suggesting insects. Topical Time (Nov.-Dec.), pp. 40-41 (S.W.F. and J. Chauvin).

1967

222. Mayflies taken at the Archbold Biological Station, Highlands County, Florida. Fla. Entomol. 50:281-284.

1968

223. Notes on Meloidae taken at the Archbold Biological Station, Highlands County, Florida. Fla. Entomol. 51:51-53.

1969

224. Improvement of the efficiency and selectivity of the insect light trap. Year Book Am. Philosophical Soc., 1968:299-300.
225. Supplement to Florida insects taken in light traps. Fla. Entomol. 52:91-101.

1970

226. Light trap collecting compared with general collecting at the Archbold Biological Station. Fla. Entomol. 53:173-177.
227. A trap to test the response of insects to various light intensities. J. Econ. Entomol. 63:1344-1346.

1971

228. *Pachydiplax longipennis* (Odonata:Anisoptera): records of night activity. Fla. Entomol. 54:205.

1972

229. Notes on *Blepharida dorothea* Mignot (Coleoptera:Chrysomelidae). Entomol. News 83:45-47.
230. Notes on *Urodus parvula* (Henry Edwards) (Yponomeutidae). J. Lepid. Soc. 26:173-177.

1973

231. Hosts and eggs of *Blepharida dorothea* (Coleoptera:Chrysomelidae). Fla. Entomol. 56:120-122.
 232. A summary of the Sphingidae taken at the Archbold Biological Station, Highlands County, Florida. Entomol. News 84:157-160.
 233. Honeybees and bumblebees taken in light traps. Entomol. News 84:235-236.

1975

234. Third supplement to insects taken in light traps at the Archbold Biological Station, Highlands County, Florida. Fla. Entomol. 58:35-42.
 235. An index to the insects and spiders featured on Audubon's bird plates. Entomol. News 86:217-226.

1977

236. Insects associated with the extrafloral nectaries of elderberry. Fla. Entomol. 60:186.
 237. Damsel-flies and dragon-flies on stamps. Zoology 26(1):16-18.

1979

238. A preliminary study of North American insects associated with elderberry flowers. Fla. Entomol. 62:341-355.
 239. Autobiography of an entomologist. Melsheimer Entomol. Ser. 26:33-38.

1980

240. Inside the stamp. Scott's Mon. Stamp J. 61(3):10-17.

New Names Proposed by S.W. Frost

Diptera

Agromyzidae

- Agromyza allia* Frost 1943, J. N.Y. Entomol. Soc. 51:257 (now placed in the genus *Liriomyza* Mik)
Agromyza angelicae Frost 1934, Entomol. News 45:40 (now placed in *Melanagromyza* Hendel)
Agromyza approximata Frost 1936, Ann. Entomol. Soc. Am. 29:316 (now placed in *Melanagromyza*)
Agromyza baptisiae Frost 1931, Can. Entomol. 63:275 (now placed in *Liriomyza*)
Agromyza barrocoloradensis Frost 1936, Ann. Entomol. Soc. Am. 29:300 (now placed in *Liriomyza*)
Agromyza brazilensis Frost 1939, Entomol. News 50:97 (now placed in *Liriomyza*)
Agromyza busckei Frost 1936, Ann. Entomol. Soc. Am. 29:315 (now placed in *Ophiomyia* Braschnikov; inadvertently spelled "buskei" in original description)
Agromyza cassiae Frost 1936, Ann. Entomol. Soc. Am. 29:306 (now placed in *Calycomyza* Hendel)
Agromyza centrosemae Frost 1936, Ann. Entomol. Soc. Am. 29:301 (now placed in *Japanagromyza* Sasakawa)
Agromyza cinereifrons Frost 1931, Can. Entomol. 63:276 (a synonym of *Phytobia angulata* (Loew))
Agromyza commelinae Frost 1931, Entomol. News 42:72 (now placed in *Liriomyza*)
Agromyza crotonis Frost 1936, Ann. Entomol. Soc. Am. 29:313 (now placed in *Melanagromyza*)
Agromyza currani Frost 1936, Ann. Entomol. Soc. Am. 29:305 (now placed in *Japanagromyza*)

- Agromyza curvibrissata* Frost 1936, Ann Entomol. Soc. Am. 29:309 (now placed in *Ophiomyia*)
- Agromyza dorsocentralis* Frost 1936, Ann. Entomol. Soc. Am. 29:307 (now placed in *Phytobia* Lioy)
- Agromyza ecuadorensis* Frost 1939, Entomol. News 50:99 (a synonym of *Liriomyza braziliensis* (Frost))
- Agromyza ipomaeae* Frost 1931, Entomol. News 42:74 (now placed in *Calycomyza*)
- Agromyza iridescens* Frost 1936, Ann. Entomol. Soc. Am. 29:303 (now placed in *Japanagromyza*)
- Agromyza kallima* Frost 1936, Ann. Entomol. Soc. Am. 29:299 (now placed in *Phytobia*)
- Agromyza oralis* Frost 1936, Ann. Entomol. Soc. Am. 29:309 (now placed in *Ophiomyia*)
- Agromyza orbitalis* Frost 1936, Ann. Entomol. Soc. Am. 29:314 (now placed in *Japanagromyza*)
- Agromyza phaseolunata* Frost 1943, J. N.Y. Entomol. Soc. 51:256 (now placed in *Liriomyza*; a synonym? of *L. sativae* Blanchard)
- Agromyza (Liriomyza) propepusilla* Frost 1954, Entomol. News 65:73 (new name for *Liriomyza subpusilla* (Frost), nec Malloch 1914, Ann. Mus. Hung. Budapest 12:314; a synonym of *L. sativae*)
- Agromyza punctohalterata* Frost 1936, Ann. Entomol. Soc. Am. 29:311 (now placed in *Ophiomyia*)
- Agromyza schmidti* Frost 1936, Ann. Entomol. Soc. Am. 29:302, nec Aldrich 1929, Proc. Entomol. Soc. Wash. 31:89 (renamed *Japanagromyza frosti* Frick)
- Agromyza subpusilla* Frost 1943, J. N.Y. Entomol. Soc. 51:255, nec Malloch 1914, Ann. Mus. Hung. Budapest 12:314 (renamed *Liriomyza propepusilla* Frost; a synonym of *L. sativae*)
- Agromyza tibialis* Frost 1936, Ann. Entomol. Soc. Am. 29:312, nec Fallen 1823, *Agromyzides Sueciae*. Diptera sueciae 2(37):1-10 (renamed *Melanagromyza aldrichi* Frick; now placed in *Japanagromyza*)
- Agromyza ulmi* Frost 1924, Cornell Univ. Agric. Exp. Stn. Mem. 78:54 (a synonym of *A. aristata* Malloch)
- Agromyza viridis* Frost 1931, Can. Entomol. 63:277 (now placed in *Melanagromyza*)
- Liriomyza archboldi* Frost 1962, Entomol. News 73:51
- Phytomyza affinalis* Frost 1924, Cornell Univ. Agric. Exp. Stn. Mem. 78:84
- Phytomyza angelicella* Frost 1927, Ann. Entomol. Soc. Am. 20:218
- Phytomyza aquilegiana* Frost 1930, Ann. Entomol. Soc. Am. 23:459
- Phytomyza auricornis* Frost 1927, Ann. Entomol. Soc. Am. 20:217
- Phytomyza centralis* Frost 1936, Ann. Entomol. Soc. Am. 29:317
- Phytomyza delphiniae* Frost 1928, Can. Entomol. 60:77 (a synonym of *P. aconiti* Hendel)
- Phytomyza flavinervis* Frost 1924, Cornell Univ. Agric. Exp. Stn. Mem. 78:85
- Phytomyza jucunda* Frost and Sasakawa 1954, Mushi 27:49
- Phytomyza lactuca* Frost 1924, Cornell Univ. Agric. Exp. Stn. Mem. 78:85
- Phytomyza marginalis* Frost 1927, Ann. Entomol. Soc. Am. 20:219
- Phytomyza melanella* Frost 1924, Cornell Univ. Agric. Exp. Stn. Mem. 78:86
- Phytomyza minuta* Frost 1924, Cornell Univ. Agric. Exp. Stn. Mem. 78:86 (now placed in *Haplomyza* Hendel)
- Phytomyza nigrinervis* Frost 1924, Cornell Univ. Agric. Exp. Stn. Mem. 78:87
- Phytomyza plumiseta* Frost 1924, Cornell Univ. Agric. Exp. Stn. Mem. 78:87
- Phytomyza subtenella* Frost 1924, Cornell Univ. Agric. Exp. Stn. Mem. 78:89
- Phytomyza trivittata* Frost 1924, Cornell Univ. Agric. Exp. Stn. Mem. 78:89

Species Named in Honor of S.W. Frost

Taxonomists have proposed the following patronyms to commemorate the entomological work of Stuart Frost. I may have overlooked some species named in his honor, but all other species named "*frosti*" that I was able to find were dedicated to the Massachusetts coleopterist C.A. Frost.

Hemiptera-Heteroptera

Miridae

Hyaliidocoris frosti Knight 1943, Entomol. News 54:120

Hemiptera-Homoptera

Aphididae

Grylloprociphilus frosti Smith & Pepper 1968, Proc. Entomol. Soc. Wash. 70:57

Coleoptera

Scarabaeidae

Serica frosti Dawson 1967, J. N.Y. Entomol. Soc. 75:166

Buprestidae

Pachyschelus frosti Fisher 1930, Proc. Entomol. Soc. Wash. 31:177

Diptera

Tipulidae

Limnophila (Phylidorea) frosti Alexander 1961, Great Basin Nat. 21:84

Stratiomyidae

Chrysochlorina frosti James 1939, J. Kans. Entomol. Soc. 12:35

Merosargus frosti James 1941, Lloydia 4:307

Tabanidae

Hybomitra frosti Pechuman 1960, Can. Entomol. 92:794

Asilidae

Senobasis frosti Bromley 1951, Am. Mus. Novitates 1532:12

Tephritidae

Eutreta frosti Hering 1938, Deutsche Entomol. Z. 2:415

Agromyzidae

Cerodontha (Dizygomyza) frosti Spencer 1973, Arthropods of Fla. 7:65

Japanagromyza frosti Frick 1952, Univ. Calif. Publ. Entomol. 8:373 (new name for

Agromyza schmidtii Frost 1936, nec Aldrich 1929, Proc. Entomol. Soc. Wash. 31:89)

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